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Conference Abstract

Wiki Loves iNaturalist: How Wikimedians Integrate iNaturalist Content on Wikipedia, Wikidata, and Wikimedia Commons

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Abstract

With over 50 million observations per year, iNaturalist is one of the world's most successful citizen science projects, uniting millions of people worldwide in observing, sharing, and identifying nature (Mason et al. 2025). iNaturalist and Wikipedia have much in common: they are both collaborative, large-scale, open infrastructures made by volunteer communities with long-reaching impact on human knowledge. Wikipedia and its sister projects, Wikimedia Commons and Wikidata, also influence biodiversity research worldwide via their numerous, widely-accessed entries on nature topics (Lubiana 2025).

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While contributions to both projects are primarily made by individual volunteers, a community of iNaturalist contributors that first convened at Wikimania 2018, a Wikimedia conference in Cape Town, South Africa, started WikiProject Biodiversity. The coordinated contributors facilitate content flow in three main ways: by directly adding content to iNaturalist and sharing it on Wikimedia projects, by supporting the development of tools, and by promoting campaigns and outreach activities (for example, by participating at Living Data 2025, in Bogotá, Colombia). To enable the seamless upload of iNaturalist images to Wikimedia Commons (which in turn enables their reuse on Wikipedia and other Wikimedia projects), this volunteer community has developed a diverse set of open source tools, detailed in Table 1. These volunteer-driven tools are released under open source licenses, making it possible for anyone to join, contribute and expand on the work.

Table 1.

Tools used by Wikimedians to upload images from iNaturalist to Wikimedia Commons.

Tool	Availability	Use cases	Source code	Uploads
iNaturalist2Commons	Directly on Wikimedia Commons, as a userscript written in JavaScript. Available at commons.wikimedia.org/wiki/User:Kaldari/iNaturalist2Commons	Search iNaturalist images directly on Wikimedia Commons	Available at github.com/kaldari/iNaturalist2Commons. Kaldari, MIT License	~164,000
iNat2Wiki	As a standalone web application written in Python. Available at inat2wiki.toolforge.org	Prioritize images from a user, or project. Upload images found browsing iNaturalist	Available at github.com/lubianat/inat2wiki. Tiago Lubiana, The Unlicense	~1,200
Wiki Loves iNaturalist	As a standalone web application written in JavaScript. Available at wikilovesinat.netlify.app	Find articles on English Wikipedia and Wikidata that may receive iNaturalist images. Upload images found browsing iNaturalist	Available at github.com/jdlrobson/WikiLovesINat. Jon Robson, MIT License	~14,600

While there is no formal content partnership between iNaturalist and the Wikimedia Foundation, the volunteer community that connects the two platforms follows a similar pattern as GLAM (Galleries, Libraries, Archives and Museums) partnerships in Wikimedia. This ensures that iNaturalist content on Wikimedia enjoys a wealth of resources for tracking and reporting impact, including statistics for uploads and page views. Using Wikimedia's open Commons Impact Metrics API, we can identify over

220,000 images on Wikimedia Commons sourced from iNaturalist. A fourth of those images (around 53,000) are reused to illustrate content on Wikimedia projects (such as English Wikipedia). On average, iNaturalist images receive around 27 million monthly views across Wikimedia platforms (as of August 2025). When these images make it to the English Wikipedia main page, views may go as high as 196 million in one month, which was the count for May 2025 (Fig. 1).

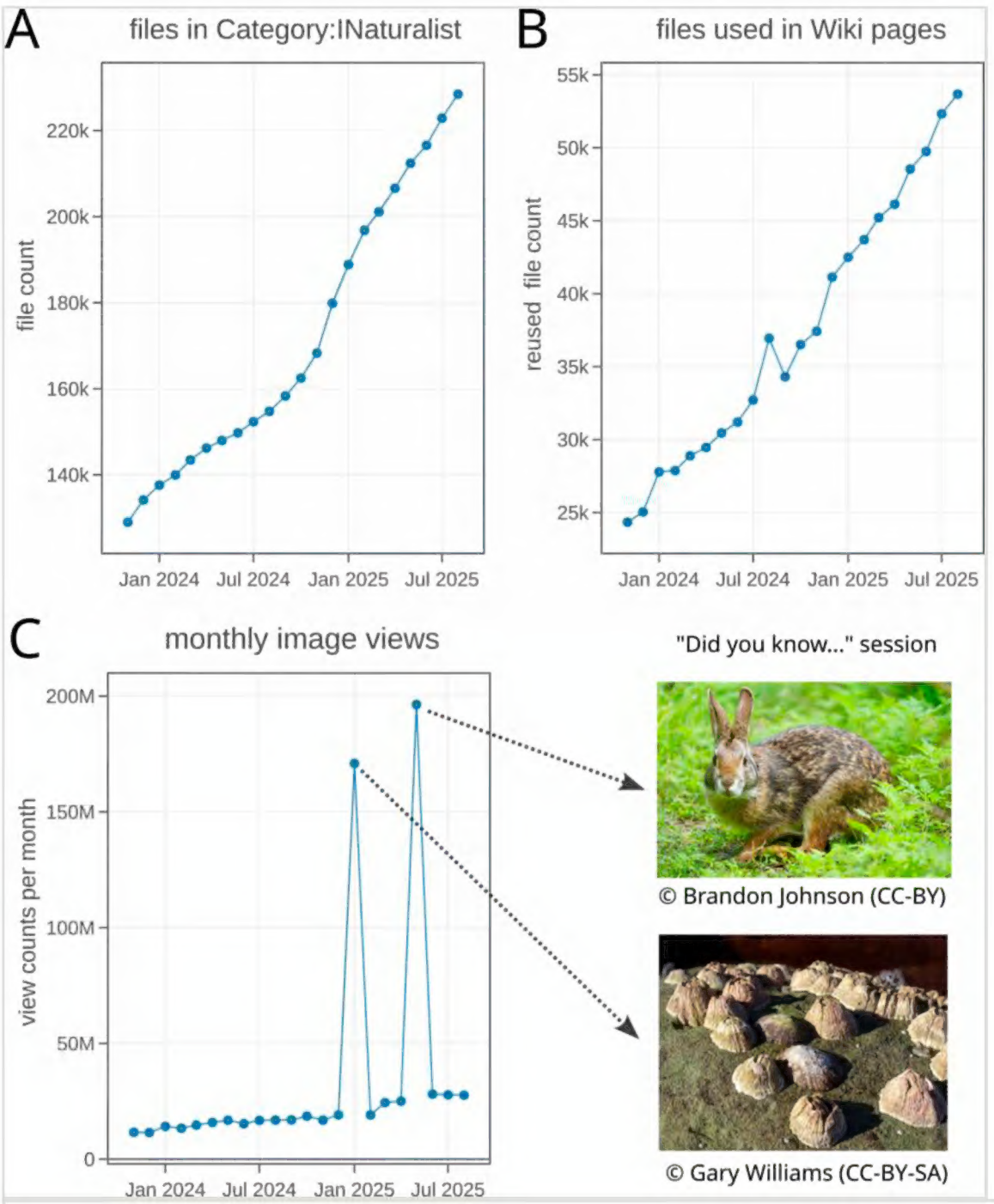

Figure 1.

The steady growth demonstrated of iNaturalist content on Wikimedia projects: A) the number of files in the category "INaturalist" (sic) and subcategories on Wikimedia Commons, including image and audio files; B) the number of files in the category that illustrate a page in at least one Wikimedia project (e.g., Spanish Wikipedia or Wikidata); and C) the number of times the images in the categories were viewed across Wikimedia projects. Peaks correspond to the months in which the depicted images were displayed in the "Did you know..." session on the main page of English Wikipedia. Metrics via the Commons Impact Metrics Dashboard. Figure by Tiago Lubiana, CC-BY 4.0.

iNaturalist content also finds its way into the Wikimedia ecosystem via Wikidata, a collaboratively edited multilingual knowledge graph, which also has members engaged with biodiversity informatics (Groom and Paul 2020, von Mering et al. 2025). Wikidata currently holds five kinds of iNaturalist identifiers: place, taxon and user IDs enrich information on Wikidata, while photo and observation IDs contribute to structured metadata on Commons. This infrastructure supports and enriches iNaturalist itself, as the platform relies on Wikidata links to select Wikipedia content as the default description of taxon pages.

To sum up, we invite the reader to join the community of iNaturalist contributors and Wikimedians: there are a countless ways that biodiversity lovers can join and support this work (von Mering et al. 2025, Meudt and Leachman 2025). By uploading iNaturalist photos, joining WikiProject Biodiversity, and licensing your photos as CC0, CC-BY or CC-BY-SA, you will be joining a welcoming community, and helping to expand the free (as in freedom) biodiversity knowledge on the internet.

Keywords

citizen science, open knowledge, biodiversity

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Conflicts of interest

The authors have declared that no competing interests exist.

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